

Employee receives award for TV noise filter

Television Office Chief James C. Stamps has received a \$1,500 cash award for his part in developing a television noise-reduction device used during Skylab and ASTP missions.

Stamps, of COD's Photographic Technology Division, and Bernard L. Gordon, formerly a Taft Broadcasting contract employee, split a \$3,000 award given by NASA Headquarters in recognition of their joint work on the noise filtering

unit.

Jack A. Kinzler, chief of the Technical Services Division of COD, presented the check to Stamps during an awards ceremony Aug. 9.

Stamps told the *Roundup* that work on the device was begun in 1969. It was made operational in 1973 and a patent was issued on April 1, 1975.

Stamps and Gordon solved a problem which had plagued NASA television reception since color

video was first used on Apollo 10.

Color-television video signals transmitted in noisy environments (as from space) produced poor images. Standard filtering techniques to reduce the noise usually decreased picture resolution.

What was needed was a new system to improve the signal-to-noise ratio in color TV video signals. So that's what Stamps and Gordon built.

Essentially, the device separates

the incoming color video signals into luminance (black and white) and chrominance (color) components.

The black and white signal is recorded on a disk recorder up to a total of four television frames. The frames are then summed and averaged, reducing the random noise and returning the basically repetitive TV signal to its original strength.

The color signal is then added back to the new black and white

signal and the result is a noise-reduced television signal.

NASA Headquarters gave lesser cash awards to 12 other JSC employees and 13 more JSC contractor employees during fiscal year 1976.

A total of \$12,000 in awards for scientific and technical contributions were given out here. A photo and story on other JSC award winners will appear in a later issue of the *Roundup*.

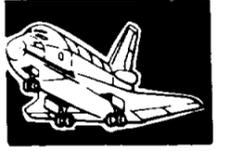


AWARD WINNER — James C. Stamps checks over the equipment which won him a \$1,500 cash award. The color television noise-reduction device developed by Stamps and former contractor employee Bernard L. Gordon solved a problem which had plagued NASA color TV reception for years.

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



VOL. 15 NO. 17

Friday, August 27, 1976

JSC tops own safety record; Fletcher sends congratulations

NASA Administrator Dr. James C. Fletcher has sent congratulations to JSC for exceeding the federal safety goal for employee injuries during 1975.

In a letter to Dr. Christopher C. Kraft Jr., center director, Fletcher noted that the Federal Government Safety '76 goal of 0.2 lost-time injuries per 200,000 man-hours worked was surpassed last year at JSC.

"We can all look with pride on your exemplary efforts which produced a lost-time injury frequency rate of 0.06," Fletcher said.

"Please accept my congratulations on your exceedingly effective occupational safety, health and employee awareness programs which enabled you to exceed the goal," the agency administrator concluded.

The JSC injury record for 1975 was its best since maintenance of safety statistics began here in 1967.

"The JSC safety record has shown significant improvement..., and this is largely due to the careful

attention which JSC personnel have given to safety considerations in all areas of center activities from designs and tests to the maintenance and use of facilities and streets," and Kraft.

"We hope that the safety record for 1976 will be equal to or better than last year's," the director added.

During 1975, JSC personnel worked 6,786,861 man-hours with only two lost-time injuries among an average 3,923 employees, accident experience records show.

That results in a disabling acci-

dent frequency rate of 0.29 per million (or less than 0.06 per 200,000) man-hours worked.

The total of eight days lost as a result of the two accidents produce a severity rate of only 1.17 days lost per million man-hours worked.

The first accident in 1975 occurred when an employee cut the tip of his thumb while using a metal bandsaw. The second accident involved an employee who received a lower back injury after falling on a slippery floor in a room being remodeled.

'Satellite-on-a-string' may ride on Shuttle

Scientists at NASA's Marshall Space Flight Center, Huntsville, Ala., are studying the feasibility of a "tethered" satellite as part of the payload of the Space Shuttle Orbiter.

Consisting of a subsatellite suspended by a cable from the Orbiter's cargo bay, the system could be used to deploy and control structural materials used in space station construction or to transfer articles from one manned vehicle to another.

The tethered satellite could also be "trolled" by the Orbiter through a low-altitude, atmospheric Earth orbit to allow extensive scientific exploration of the atmospheric region extending 80 kilometers (49.7 miles) to 120 kilometers (74.5 miles) from the Earth's surface.

One reason for such exploration would be to provide more accuracy than has been previously achieved in mapping the Earth's magnetic and gravity fields.

Other potential applications include studies of low Earth orbit aerodynamics, reentry dynamics and temperature effects.

Previous attempts at discovering the properties of the upper atmospheric region have had only limited success. This is due primarily to the inability of past exploration vehicles (sounding rockets and low-altitude satellites) to remain in the region for significant time spans before atmospheric drag and gravity force them back to Earth.

Coverage up, premiums down on NEBA group insurance plans

Group life insurance coverage has been increased and premiums reduced as a result of action by the NASA Employees Benefit Association board of directors.

Effective Oct. 1, Basic Life and Accidental Death and Dismemberment benefits under Policies GL661 and GD661 will increase by 25 per cent. (The present 25 per cent Bonus Protection became part of the permanent schedule.)

On the same date, premiums for the above coverage will be reduced

by 10 cents per thousand per quarter. In addition, dependents coverage has been increased and quarterly premiums changed.

For additional information, contact the NEBA office, ext. 5410.

Roy C. Aldridge, president of the JSC-NEBA chapter, notes that the plan is now in its 25th year with more than 12,500 members and \$355 million insurance in force. More than \$18 million in claims have been paid to beneficiaries.

Viking 2 prepares for Sept 3 landing

Viking 2's Sept. 3 landing site on the Utopia Plains of Mars is five times more moist than elsewhere on the planet and therefore more likely to support life, scientists at the Jet Propulsion Laboratory re-

port. The site was chosen last Saturday following a five-hour meeting between engineers and scientists working on the project.

Scientists had supported a landing in the Arcadia region but photographs showed that site was too hazardous. Both Arcadia and the Utopia plains are in the moist region between 40-50 degrees north latitude.

The landing, next Friday, is scheduled between 6-8 p.m., CDT. Meanwhile on the Martian surface, a second soil sample was dropped into the Viking 1 Lander's organic molecule analyzer to learn if carbon molecules, believed essential to life, are present. The first test was negative.

Puzzling results from previous Viking 1 experiments still had not been cleared up at *Roundup* press time.

"I know this must seem to be a badminton game between chemistry and biology," said biologist Dr. Gilbert Levin.

"Biology seems, at least, to have survived if not gained some advantage over chemical reactions. But the game is not over," he said.

Scientists continued to study results of an experiment conducted with the same soil which produced the puzzling data. This time, the soil had been sterilized before tests were begun.



CURIOUS VISITOR — Employees and tourists alike were recently surprised by this feathered visitor taking a leisurely self-guided tour around the grounds of Buildings 1 and 2. Informed sources told the *Roundup* it is a young roseate spoonbill. The bird seemed unperturbed as it posed for numerous pictures, including this one by Technicolor employee Pete Vazquez.

Gloria Scott chosen for secretary award

Gloria E. Scott, secretary to the Space Shuttle Program manager, has been selected JSC Outstanding Secretary for August.

Scott was a member of the Space Task Group which moved to Houston from Langley AFB, Va., to set up the new center for manned space flight activity.

She has served as lead secretary of a JSC program office since her assignment to the Apollo Applications Program Office in 1966.

During the years, she has served as secretary to Robert F. Thompson in his assignments as chief of the Landing and Recovery Division, assistant manager and

manager of the Apollo Application Program and currently as manager of the Space Shuttle Program.

In nominating Scott for the award, Thompson noted that JSC serves as lead center for the entire Space Shuttle Program and must therefore maintain effective communications with many intra-agency and inter-agency groups.

"This unique role requires that the secretary to the manager be exceptionally professional and knowledgeable of the program content and organization interrelationships," he said.

"Mrs. Scott has been serving in a very critical position. She has performed these critical duties in a superior fashion.

"She has the ability to recognize potential problem areas, the status and relative priority of numerous activities and personnel competing for the program manager's limited schedule ... and the items of real significance in the large volume of correspondence which must be reviewed daily and screened for the program manager's attention," Thompson said.

"In summation, Mrs. Scott has demonstrated outstanding performance over an extended period of years. She is therefore highly recommended for the JSC Outstanding Secretary Award."



Gloria E. Scott

Development Branch helps retirees adjust

"We should all be concerned about the future because all of us will spend the rest of our lives there."

— Charles F. Kettering, chief engineer, General Motors Corp.

Have you stopped to think seriously about how you will spend your retirement years? Do you really think you could be content playing golf seven days a week, or staying home with your spouse and putting in the garden?

One woman complained to her newly-retired husband, "I married you for life, Joe, but not for lunch."

Will you be lonely, depressed, bored when you abandon the 40-hour a week routine? Can you find contentment, self-fulfillment — and perhaps needed supplementary income — after you have turned in your spurs as a civil servant? These are important questions.

For those interested in finding some of the answers, the Employee Development Branch is sponsoring a seminar/workshop entitled, "Planning Beyond the Federal Career." It will be offered Sept. 10 only in Room 206 of the Gilruth Recreation Center.

Any JSC employee interested in obtaining assistance in developing a meaningful life plan may enroll. The first 40 to apply will be selected. Those applying may be of any age, grade or length of federal service. Enrollment is limited to JSC employees and their spouses.

Topics to be covered include JSC retirement benefits, financial and estate planning, the use of leisure time, psychological preparation for retirement and healthcare maintenance. Course hours will be 8:30 a.m. to 4:30 p.m.

Employees wishing to apply or seeking additional information may contact Eugene Horton, AH3, ext. 3734. Applicants must be enrolled through the Employee Development Branch no later than Tuesday, Sept. 7.

Project IQ chooses 11 participants

The second group of participants for Project Increased Qualifications has been selected by the Employee Development Branch.

Chosen from among applicants for the college study program were Barbara J. Baldwin, Barbara A. Beasley, Patricia A. Goldstein, Juan B. Gonzalez and Mary K. Harvey.

Also, Naomi P. Huggins, Monica B. Kruet, Sharon J. Martin, Carole R. Myers, Glenda I. Warren and Mary Beth Westover.

Project IQ was designed to allow selected employees to enroll in one or two college courses during duty hours for four semesters.

Stanley Goldstein, chief of the Employee Development Branch, said the one-year-old program has been successful and he expects it to be offered annually.



RECEIVING AWARDS — Special Achievement Awards were presented by Dr. S. A. Sjöberg, deputy director, to 13 members of the Institutional Procurement Division in recognition of their work and initiative in implementing the administrative support system in the Institutional Procurement Division. Each individual received \$300 as part of the award. Pictured with Dr. Sjöberg (standing, L to R) Monena Scoble, Dolores Hernandez, Anne Thompson, Vivian Derricks, Betty Eaton, Chyrene Swan, (seated L to R) Carol Turner, Betty Carney, Marya Baugh, Deanne Pierce, and Paula Fyffe. Not pictured are Evelyn Rosenbaum and Rebekah Thompson.

EAA attempts to broaden range of social activities

By James McBride

(McBride, president of the Employees Activities Association, has been writing a series of reports on the results of an EAA survey of JSC employee interest and participation in various activities and events. — Editor.)

Back in the "good ole days" when money flowed freely through the EAA coffers, JSC employees enjoyed a wide variety of sponsored social activities at very attractive prices.

In time, the good offers became fewer and the EAA budgets became smaller. Attendance dropped as costs rose.

One by one, the group social events were dropped until only the JSC Picnic and Christmas Dance remained. The survey focused attention on employee opinions concerning these two events.

Three things are certain about the picnic — the employees want it continued, on-site and with the same format. Other options are pretty much a toss-up. Consideration will be given to a spring picnic in coming years.

Some changes are being made to revitalize interest in the picnic, set for Oct. 16 this year.

Food will be optional with tickets priced at \$3 for food and admission and \$1 for admission only.

The number of midway games and rides will be reduced because few small children attend. More emphasis will be placed on club exhibits and adult events.

The options on the Christmas Dance were not as clear cut, but its popularity is obvious. It has been a sell-out for the last three years.

There will be two dances this year — one Friday, Dec. 3, and one Saturday, Dec. 4 — with the same bands playing both nights.

That decision had to be made before the survey results were available because bands have to be booked in January.

The meal on Friday night will be roast beef and prime rib will be served on Saturday. Tickets will be cheaper for Friday.

Some employees would prefer the dance off-site but the cost would be prohibitive.

The Country Western Dance has been added as a regular event because of its popularity. The second C-W dance this year, on Sept. 11, is planned to break even so no EAA subsidy is required.

Because of the interest indicated on the survey, a Las Vegas Night was held this spring. It was successful and will probably become an annual event.

Also as a result of the survey, the EAA representatives voted to have a New Year's Eve Dance. There is currently doubt that the dance can be held in the Gilruth Recreation Center. Since no other location of sufficient size is available in the area, plans may have to be cancelled.

In addition, the survey indicated an interest in "NASA Nights" at various events.

To test the strength of this interest, a Night at the Dean Goss Dinner Theater is being planned for late September. If this event proves successful, others will be tried.

L. D. Allen rites held last week

Funeral services were held Aug. 16 for Louis D. Allen, technical assistant in the Experiment Systems Division. Burial was in Livingston, Texas.

Allen, of Friendswood, was 51 years old. Survivors include his wife Maxine Allen, and a son, Louis D. Allen Jr., both of Friendswood.

An engineering graduate of the University of Houston, Allen joined JSC in the Flight Crew Operations Directorate in 1962. He served as chief of the Crew Station Branch of the Flight Crew Support Division for five years and was reassigned to the Engineering and Development Directorate in the 1974 reorganization.

Allen was active in local organizations including Cade Rothwell Lodge No. 1151 AF&FM, Houston Scottish Rite Bodies, Arabia Temple, Sun Meadows Golf Association, Clear Creek Bass Club, and Arabia Golfers. He was a member of Park Place Baptist Church of Houston.

Donations may be made in his memory to the Shrine Hospital for Crippled Children, 1402 Outer Belt Drive, Houston 77030, or the Masonic Home and School, Box 3040, Fort Worth 76105.

Solar power meet set Sept 9

Center Director Dr. Christopher C. Kraft Jr. and Robert O. Piland, E&D assistant director for program development will speak jointly, Sept. 9, on space solar power.

The JSC officials will be special guests at a joint dinner meeting of the American Institute of Aeronautics and Astronautics and the

Society of Experimental Test Pilots.

The meeting will be held at the Gilruth Recreation Center with social hour beginning at 6 p.m. followed by dinner at 7 p.m.

Reservations may be made through Sept. 7 by calling Lillian Hudson, ext. 4991.

ROUNDUP



NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS

The Roundup is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

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Photographer: A. "Pat" Patnesky



MINORITY BUSINESS AWARDS — Plaques were recently presented to JSC and the Small Business Administration by minority business leaders in appreciation for support of minority enterprises. Pictured (L to R) are Jose R. Perez, JSC minority business specialist; Limas Jefferson of Jefferson Associates Inc.; Center Director Dr. Christopher C. Kraft Jr.; SBA District Director John Carey; Frank C. Urteaga of Caspan Corp., and James L. Neal, JSC director of procurement.

JSC exceeds goal

JSC exceeded its goal for fiscal 1976 by awarding a total of \$2,265,727 in contracts to minority business enterprises.

That total surpassed the center's target of \$2.2 million to be placed under the Small Business Administration's Section 8(a) Business Development Program.

The center has awarded almost \$6.8 million to 8(a) businesses since the beginning of the program.

The 8(a) company receiving the largest total awards this fiscal year

was Chimex-Systems Inc., a Houston-based electronics firm.

One of the Chimex contracts is for engineering support services and valued at \$439,206. The other is for keypunch, data entry and verification and valued at \$452,000.

Other contractors receiving awards of more than \$100,000 were Data Transformation Corp., Pride & Power-Speedy Maintenance Service and Supply, Caspan Corp., Jefferson Associates Inc., Triple H Construction Co. Inc., and Site Work & Concrete Contractors.

Kondo attends meet

JSC Astronomer Dr. Yoji Kondo will be in Grenoble, France, through Sept. 2, attending the triennial general assembly of the International Astronomical Union.

Invited papers which Kondo will present at various joint discussions and scientific sessions will include reports on the results of the Balloon-borne Ultraviolet Stellar Spectrometer experiment.

Kondo was co-principal investigator for the US on that operation

sponsored jointly by NASA and the Space Research Laboratory of the Netherlands.

Kondo will serve on the organizing committees of a commission on close binary stars and a joint discussion on X-ray binaries and compact objects.

He will also be coordinator for the IAU's planned 1977-79 campaign for observation of X-ray binaries.

EAA ATTRACTIONS

COMING EVENTS

Sept. 11 — Country Western Dance
 Sept. 23 — JSC Blood Drive
 Late Sept. — NASA Night at Dean Goss Dinner Theater
 Oct 4-8 — Stop Smoking Clinic
 Oct. 16 — JSC Picnic

ATTENTION SMOKERS

Don't forget to reserve the week of October 4-8 for the 5-Day Stop Smoking Plan. It may be the nudge you need to stop — it has worked for others.

To reserve a spot, call ext. 2310 and leave your name, extension and code. Cost is \$7.50, payable Oct. 4.

TENNIS TOURNAY SET

The JSC Tennis Club's Bobby Riggs Invitational Tournament — with both sexes competing together — is tentatively scheduled for Sept. 11-12. Contact Jim Walker, ext 2611.

Following are results of the club's Firecracker Tournament held Aug. 7-8.

ADVANCED — Men's Singles: Dan McFarlin beat Dorsey Wilmarth 7-5, 6-4; Mixed Doubles: Dave Scheffman/Cassie Holtman beat Jeff Lacy/Mary Lacy 7-5, 7-5.

INTERMEDIATE — Men's Singles: Norm Tiller beat S. Kohan 6-3, 4-6, 6-2; Men's 35 Singles: Bob Voss beat K. Alder 6-3, 7-5; Women's Singles: Sandra Schmidt beat Donna Purnell 6-0, 7-5; Mixed Doubles: John Lottinville/Martin beat J. J. Conwell/Carolyn Thompson 6-4, 6-2.

NOVICE — Women's Singles: Sue Richards beat Gail Richards 6-7, retired; Mixed Doubles: Bill Simmons/Pat Crouse beat Seffer/Ann Walker 5-7, 6-4, 6-3.

FLIGHT TRAINING

The Aero Club's plans for ground and flight training will be discussed at an information meeting at 5:15 p.m. Sept. 1, in Room 206 at the Gilruth Center.

Current plans center around a "solo" course, a basic ground school, and an instrument ground school. Contact Jack Boze, ext. 3824 or Bernie Marcantel, ext. 4766.

TICKETS

Dean Goss Dinner Theater tickets for the comedy production *Love in E-Flat* are \$16/couple, good Thur-Fri-Sun only through Sept. 5. They are available at Bldg. 11, Exchange Store, 10 a.m.-2 p.m.

No Windmill Dinner Theater tickets have been received for September.

Also available are ABC Interstate theater tickets, \$1.50; free Disney Magic Kingdom Club cards and Six Flags Funseekers Club cards; Sea Arama adult tickets, \$3.25, children, \$2.25; and Houston Astros gift coupons, \$4 box seats, \$3.15 reserved seats.

SWING YOUR PARTNER

Time to buy tickets for the big Sept. 11 EAA Country Western Dance is running short. You can pick them up for \$9/person through Sept. 3 at the Exchange Store.

This is the second 1976 C-W bash and will feature the down-home sounds of the Music Masters from Kurten.

Your favorite refreshments will be served from 7 p.m.-1 a.m. Barbecue dinner will be served from 8-9 p.m., when the music starts.



DRIVE DEFENSIVELY

A renewed interest in the Defensive Driving Course has come with the impending increase in auto insurance rates.

The course may be offered again at JSC in October or November if at least 25 persons register. Dates will be scheduled if sufficient interest is shown. If you are interested, call ext. 2310.

In the meantime, College of the Mainland is offering the course three times this fall in two four-hour Saturday morning sessions. Dates are Sept. 18, 25; Oct. 16, 23; Nov. 6, 13. Fee is \$6 person.

For the same fee, COM will offer the two-day course in Friendswood, beginning Oct. 27, and Hitchcock, beginning Sept. 28.

Roundup Swap-Shop

Swap Shop advertising is open to JSC federal and on-site contractor employees. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin. Non-commercial personal ads should be 20 words or less, and include home telephone number. Typed or scribbled ad copy must be received by AP3/Roundup by Thursday of the week prior to publication.

VEHICLES

- Credit Union repos. 73 Ford Torino, 73 Vega, 72 Pontiac Grand Prix, 71 Dodge, 75 Honda cycle, 73 four-bdrm mobile home. Shown by appt only, 10 am-2pm, Aug. 30-Sept. 1. 488-7070.
- 75 Chevy Open Road van camper. Sleeps 4. Stove w/oven, water htr, refrige, toilet, furnace w/thrmstat, stereo tape/FM. Aux batt, 110 hookup. Like new, 6K miles. 471-4419.
- 72 Yamaha 250 Enduro. 4500 miles. 482-3920 after 6.
- 69 Olds Delta Rcyale, 2-dr hardtop, bucket seats, vinyl top, V-8, auto, pwr. Nice looking, runs good, 1 owner. \$850. 331-6967.
- 63 Plym Valiant sta wgn. Body rusted but runs good. Slant 6 eng, steel radials. \$250. Kilbourn, 483-4801 or 482-7879.
- 66 MGB, good cond. Wire whls, new top. \$650. House, 483-7016.
- 73 Chevy Caprice Classic. 2-dr, a/c, am/fm, lt blue vinyl over dk blue. 488-2808 after 6:30.
- 70 VW Squareback. A/C, stereo, good cond. 332-1760 after 6.
- 70 Chrysler New Yorker. A/C, tape deck, low miles. 334-1486.
- 74 Mustang 2x2. 4-spd, 2800 cc, air, pwr steer, am/fm/cassette, 22K miles. \$3060. Homan, 483-4701 or 488-2763.
- 74 Winnebago for rent. Weekly \$175, daily \$29. 9 cents/mile. 488-2329.
- 73 Honda SL350K2 dirt/street bike. \$450. Bullock, 488-6095.
- 16' Golden Falcon travel trlr w/ extras, ball lock, etc. \$1200. 471-3709.
- 75 Chevy LN Nova. Loaded, 10K miles, new car warranty. \$3500. Owen, 334-1094.
- 74 VW Dasher. A/C, am/fm, low miles, 1 owner. \$3500. 485-3251.
- 74 Bultaco Pursang 125 cc. New Piston, Wolks performance shocks, trick. \$475. Guy, 482-3100 after 6.
- 74 Monte Carlo. Brown w/saddle tan 1/2-vinyl roof, swivel bucket seats, air, radio, 36K miles. \$3500. 482-3621 after 5.

- Go-kart. 3-1/2 hp, hvy duty frame, new rear tires and paint, runs good. \$150. Bullock, 482-6401.
- 73 Mercury Marquis Brougham. Beautiful, Luxurious, 1 owner, many xtras, xInt cond. \$3250. Garrison, 483-6343. or 334-2108 after 5.
- 67 Ford F-100 pickup. V-8, auto, air, good cond. \$695. 482-7546.
- Rent motor home. \$125/wk plus 6 cents/mi incl ins. Daily rates also. 471-5161.
- Boy's 20-in Schwinn spyder bike. XInt cond. 334-1267.
- 76 Honda 750-4. Saddle bags, 3600 miles, new cond. \$1900. 482-6542.
- Malco 250 cycle, radial FM shocks, US sport accessories, many xtras, fast. 334-3461.

BOATS

- Finn No. 289 blt by Newport. 2 masts, booms, sails. From valuable mold. Winner, numerous local/regional races. Special galvanized trlr. Goodman, 333-2778.
- Aqua Cat sailboat. 14-ft fiberglass catamaran w/Highlander trlr. \$750. Deiterich, 482-1859.
- Johnson outboard motor, compact model 9R70. 9.5 hp, runs xInt. \$295. Hyams, 332-3751.

PROPERTY AND RENTALS

- 1/2 acre residential lot in Deer Park school dist. \$9950. 479-8752.
- Townhouse in CLC. 2 b/r, 2 bath, xInt cond, good loc. 488-5017 after 4.
- Waterfront retirement or weekend home. Northside, Canyon Lake. 1 b/r. 1 bath, fireplace, carport, screened porch, stone construction. \$18,900. Siegfried, 334-2848.
- 2 b/r 14x64 mobile home in trlr pk near Humble. Central A/H, unfurn, good cond. Lease or small equity and assume paymts. 485-3251.

HOUSEHOLD ARTICLES

- Mahog Early Amer highboy. XInt cond. Goodman, 333-2778.
- Antique golden oak washstand. \$75. 488-4487.
- 8-band radio, \$55. am/fm car radio, \$100. Tape recorder needs work, \$10. bass clarinet, \$250. Clairrol crazy curl hair setter, \$12. Bennett, ext. 2986.
- Beige satin, lined drapes. 132-in wide by 92-in, valance incl. \$25. 333-4669.
- Compact 5-cu ft refrige. 34-in high, yellow w/woodgrain top. Freeze compart. \$95. McBride, 534-2066.
- 19-in B/W TV, \$10. 2-pr water skis, \$10 ea. bird cage, \$5. UV water sterilizer for aquarium, \$15. 487-2554.
- Custom gold drapes, fit 9-ft window. \$50. Doherty, 488-0182.
- Black vinyl couch, like new, \$135. blue/green grape hanging light fixture, \$20. 6-ft sliding glass door, \$35. Doherty, 488-0182.
- Beautiful drip oil framed painting of a peacock, mainly blues, green. 49-in x 37-in. \$75. Doherty, 488-0182.
- Ironrite automatic home ironer (Mangle) w/posture chair and instructions, like new operating cond, \$60. B/W Zenith TV, 21 in. portable, needs minor repair, best offer. Hervig, 488-3618.

MUSICAL INSTRUMENTS

- Gibson ES175 Guitar, \$200. Donohoe, 488-1432.
- Clarinet, Brooks Mays, used in Alvin school system for 2 yrs. \$95. 331-6800 after 6.
- Guitar, xInt cond. 334-1267.
- King Cleveland cornet, \$140. Conn Trombone, \$140. Both in xInt cond. Whitsett, 488-1777.
- 3-yr-old Wurlitzer spinet piano w/ bench, walnut. Cost \$1350. Sell \$750. Hansen, 332-3755 after 6.
- Pro quality Slingerland drums, incl bass, floor tom, wing tom, snare, stands

- and seat plus 3 Zilgjan symbols, hi-hat, sizzler and 16 in. bong. \$595. Schell, 488-0943.
- B-flat clarinet, \$45. Robinson, 482-6021.

WANTED

- Cab-over, self-container camper up to 10 ft. Hector, 488-0217.
- Leicaflex or Zeiss Contax camera w/or w/out lenses or accessories. Taub, 481-1241.
- Coffee table and living rm chair in good cond. 474-2081.
- 12' or 14' flat-bottom alum boat in good cond, priced \$75-85. Parker, 481-4372 after 5:30.
- Working student wants to rent 1-2 bdrm garage apt or small house. Pasadena, LaPorte, Seabrook area. Dale, ext. 3911.
- Baby crib, walnut, mahog or other dark wood. Jean, 483-2071; 944-7818 after 6.

MISCELLANEOUS

- Reg Irish Setter, male, 5 yrs old, good watchdog. \$100. House, 483-7016.
- 72 Jayco crank-up camper. Sink w/storage tank, ice box, gas stove. Sleeps 8. Low profile, pulls EZ, new tires. \$995. Kilbourn, 482-7879.
- Set, good used steel belt radial tires. Uniroyal HR 78-15. 4/\$50, 2/\$30. 334-2129 after 5.
- Justrite 3-gal gasoline safety can, still in ctn, \$15. Fresh summer crop honey, 80 cents/lb (pint is 1-1/2 lb). Drive motor for Ford-Merc elec windows, fits '65-'72, \$15. McBride, 534-2066.
- Swimming pool, 15x30, all alum frame. XInt cond. \$500 or best offer. Ferguson, 488-2329.
- Tires, one HR 78-15 in good cond, \$25. Two HR 70-15 like new, \$30 ea. Winston, 488-7513.
- 6-day Windjammer cruise ticket for 2. Choice to Bahamas, Br Virgin Isles or W

- Indies. \$590 value for \$500. Literature available. Goodman, 333-2778.
- Delco AM/FM car radio, w/fit late model GM pickups, Suburbans, etc. W/ out speaker. \$50. 481-6928.
- 74 Pont Catalina. 4-dr, air, pwr, AM, elec windows, radial tires. Yellow ext, green int, A-1. \$3,000. Forsyth, 534-3113.
- 60-foot chain-link fence w/poles. \$50. 482-0855 after 5.
- White paint, 3 gals ext satin finish acrylic latex. Sears Best, cost \$13/ga, sell \$8/gal. Rubenstein, ext. 5461.
- Ham radio antenna, 3-element beam. Covers 10-15-20 meters. 12-ft tripod tower, motorized rotor, xInt for DX QSO. \$75. 488-7602.
- Like new headache rack and tool box for small pickup, \$125 for both. Norelco coffee maker, used twice, \$15. Carol, 479-7437.
- Paint and easy, pro way. Rent a 1HP paint spray compressor incl 3-gal tank and 25-ft of material and air hose. 334-1138.
- Valley Tow-Rite load leveler/stabilizer trailer hitch w/ball, \$35. 3M Casual Copier, \$15. Whitsett, 488-1777.
- CB radio Pinto 23-channel mobile, \$100. Lloyds AM/FM phono stereo/quad, \$125. Guy, 482-3100 after 6.
- 2 BF goodrich LR 78-15 steel belt radial ww tires. 3000 miles. Won't balance. 2/\$25. Grow, 479-4249.
- VTVM, Eico, \$15. T/C .38 Spec barrel, brand new in box, never fired, \$45. Handley, 482-7041.
- '74 World Book Encyc, delux edit, xInt cond, yearbooks incl. \$225. Kilbourn, 482-7879.
- Travel trailer, sleeps 4, A/C, john, stove/oven. \$950. Hector, 488-0217.
- Motor oil. 16 cans Quaker State 30W non-deterg. 40 cents/can. 333-3071.
- 20' X 20' alum portable bldg. Insul, panel, floored. 2 drs, 8 windows, 2 heat/air units, lights. \$1,500. Bullock, 482-6401.
- FREE: 3 cu yds dirt. Haul it away. 334-1267.

JSC: A memorial to Johnson's vision

Today, Aug. 27, is the third anniversary of ceremonies dedicating the NASA Lyndon B. Johnson Space Center in honor of the late President.

In those three years, nearly 3 million visitors have toured the center, which stands as a memorial to Johnson's vision and leadership in pioneering the United States space

program. The late President was born on this date, 68 years ago.

A particular point of interest at JSC is the Lyndon B. Johnson Room where Johnson memorabilia is on display in the Visitor Center.

Most of the exhibited items are on loan from the LBJ Library in Austin and the National Archives and Records Service.

Outside the room is a vignette of furnishings from the Johnson White House.

Included is a desk on which the late President signed 10 space bills into law. Above that is a plaque containing 50 pens he used to sign major pieces of legislation.

Inside the exhibit room is the original U.S. copy of the Outer Space Treaty of 1967, signed by the United States, the Soviet Union and many other nations.

The walls of the Johnson Room are covered with copies of space-related bills enacted during the LBJ Administration and photos of the late President.

Among other items on display are a collection of hardhats worn by President and Mrs. Johnson on visits to various NASA centers, a bust and portrait of Johnson and a flag which flew over the White House at the time the first astro-

nauts walked on the moon.

Also on exhibit is the text of remarks made at the JSC dedication ceremonies by Lady Bird Johnson. Of her late husband, she said:

"Over a long career of service, he had the satisfaction of seeing the fulfillment of many of his dreams. Few experiences brought him greater pride than his part in the architecture of the space legislation which led to the momentous adventures of the last incredible years."

Johnson expressed his concept of America's role in space exploration during a speech here in March, 1968, shortly after he left the White House:

"We do not build rockets and spacecraft to fly our flag in space or to plant our banner on the surface of the moon. Instead, we work and we build and we create to give all mankind its last great heritage. We are truly reaching for the stars."



Flagpole, time capsules preserve Bicentennial

Any school teacher who asks one of the daughters of Louis and Mary McFadin to tell her impressions of the Bicentennial had better have plenty of time to listen.

The four girls, ages 12, 11, 10 and 9, honored the nation's 200th Birthday with their parents in a very special way which none of them is likely to forget.

"I wanted to do something different for the Bicentennial so I decided I was going to put up a flagpole," explained Louis McFadin, a design engineer in the Sensor Systems Development Branch of the Experiment Systems Division.

That idea turned into a family project climaxed by the burying of three time capsules at the base of the pole which stands in front of the McFadins' League City home.

The family wanted a 30-foot flagpole. With anything shorter, they'd be looking down at the flag from the second floor of their two-story home.

Unfortunately, the cheapest 30-foot pole available cost \$400. "It was just too expensive for us,"

McFadin said.

So the design engineer designed his own Bicentennial flagpole. He learned that the Engineering Support Section of the Photographic Systems Development Branch even had a program to determine relative safety of flagpoles.

"I had them do an analysis in their spare time for my proposed design for a 100 mph wind," McFadin said. "They told me it would withstand it with a 50 percent safety factor."

That was good enough for McFadin and he set to work. He bought the pipe at a local hardware store, cut and threaded to his specifications.

He and the girls - Sherry, Penny, Lisa and Samantha - connected the pipe and painted the pole. At the suggestion of one of the daughters, they placed a croquet ball on top.

Now, a new problem literally lay at the McFadins' feet. How do you raise a 91-pound, 35-foot flagpole (the first five feet are now underground) and place it in a six-foot deep hole?

"I had to go through a big analysis to figure out how to get that up," McFadin admitted.

After determining the center of gravity - to shorten the story - McFadin accomplished the task with the help of several ropes, a ladder, a board, some friends and a tractor-mower.

"I couldn't believe it, it went up so good," he said. He poured concrete for the foundation and then began to think about the base.

It was then that McFadin decided to put in the time capsules. He designed the base in the shape of a pentagon, with a five-pointed star inscribed inside and one tip pointing north.

The time capsules would be placed under three of the points. For the capsules, he used empty film canisters made of heavy polyethylene.

The McFadins let their imaginations determine what to put inside the capsules.

Each of the girls wrote "letters to the future" expressing their own

thoughts in their own way without showing them to other family members. They also made cassette recordings. One daughter played the violin and another played the piano.

"I made a recording myself, talking about the problems that I see; the major problems of today," their father said.

On the Fourth of July, they invited friends over, including a Vietnamese family which the McFadins had sponsored.

"We had a real nice little ceremony," McFadin said proudly. "I gave a speech. We played the national anthem on the record player and said the pledge. All the kids marched out, attached the rope, and raised the flag."

Photographs of the ceremony were taken and those, along with July 4 newspapers, some current electronics publications, a hybrid

microcircuit, the recordings, letters and other items were individually heat-sealed in plastic bags and placed in the capsules.

On July 5, the capsules were inserted and the remainder of the base was poured.

"I just hope that whenever the old flagpole rusts out so bad and they tear it down that they'll find them," McFadin said. He'd like that to be at least 50 years.

"It took a lot of planning, but it was worth it," he observed. "The kids really had a ball."

NASA, ERDA select team to build largest windmill

The largest windmill in history will be built during the next two years, according to plans of the Energy Research and Development Administration (ERDA) and NASA. The two Federal agencies have recently chosen an industrial team to construct the system.

The team of General Electric Co., Valley Forge, Pa. and Hamilton Standard Division, United Technology Corp., Windsor Locks, Conn., has been selected for negotiating a contract for approximately \$7 million to design, fabricate, assemble, install and test a 1.5 megawatt (1,500 kilowatt) wind turbine electrical generating system in 1978, at a site to be selected by ERDA.

The project will be directed for ERDA by NASA's Lewis Research Center in Cleveland, Ohio. The 20-month contract includes an option to build a second wind turbine.

Although experimental in nature, the system will be located at a utility company site and will supply electricity to the local electric system for public use.

The purpose of this test system is to determine the economics and operating characteristics of large wind turbines when coupled to conventional power plants.

To be the largest ever built, the windmill will have two slender fiberglass rotor blades spanning 200 feet, perched on a 150-foot tower.

The wind turbine will rotate at 30-40 revolutions per minute in winds of above 11 miles per hour and will reach its full power output at winds of 22 miles per hour. At a site with average wind speeds of 18 m.p.h., for instance, this machine could produce enough energy annually to supply more than 500 homes.

JSC retiree John French died Sunday

Funeral services were held Wednesday for John C. French, former deputy manager in the Safety Office, who died Sunday, Aug. 22, at his home in Seabrook.

French retired from JSC in March, 1972, ending a 40-year Civil Service Career which began in the Canal Zone as a hydraulics engineer on the Panama Canal.

During World War II, French served as a civil engineer for the Department of Defense. He then joined NACA, the forerunner of NASA.

While at JSC, he was assigned to several positions associated with the flight safety function.

French is survived by his wife, his mother, one son, three daughters and four grandchildren.



Louis McFadin



RALLYING 'ROUND - The McFadin girls raise the Stars and Stripes up the flagpole designed and built by their father in honor of the Bicentennial. They each placed items in the time capsules which were buried at the base of the pole.